Background of the Invention

The specific field of this invention is an **all-electric car**, resembling the size and shape of most of the modern cars and other contemporary vehicles. There is presently no method in the art which would allow for the higher speed and greater travel distance as our vehicle and the low current consumption characteristics make our invention very desirable in solving the pollution problem and at the same time it is very sound environmentally and the fuel supply problem does not exist with our invention.

Summary of the Invention

Our invention is a battery powered multi-speed four-wheeled vehicle capable of carrying passengers for significantly greater distance than that previously practiced in the arts; indeed, the nonpolluting advantage of this invention outweighs those of competing vehicles powered in whole or in part by engines consuming diesel, alcohol or gasoline.

Brief Description of the Drawings

The accompanying drawings show an embodiment of our invention and modification of a side view of the longitudinal Section and a back elevation view of that section.

The longitudinal view shows the two motors connected with three manually adjustable plates. The batteries and the motors are supported by channel iron/steel.

A schematic drawing (Fig.3) showing connection and interconnection showing the rectifier (9), selector switch (10), three pole disconnect switch (11), battery (12), fuel cell (13), polarized receptacle (14), polarized attachment cap (15), forward and reverse switch (16).

The drawing in Fig. 4 shows a three position low, medium and high speed with normally closed and normally open interlocks contained in the transition relay (13).

The drawing in Fig. 5 shows the interlocking at the three speed positions repeating the interlocking shown on drawing in Fig. 4 with the symbols list defining the components in the Fig. 5 drawing.

Description of the Embodiment

For a better understanding of the nature and object of our invention reference may be taken of the following detailed description of the drawing of the embodiment.

Fig. 1 shows two motors (1) and (2) mounted and hooked-up in tandem with three connecting plates and a mounting channel (7) common to both motors 1 and 2 and the quick removable and exchangeable batteries (3) mounted above the motors. This view indicates a two wheel and four wheel drive configuration by adjustments to the manually adjustment plates. Fig. 2 is a side view of Fig. 1 and shows two motors mounted in tandem with a shaft and three connecting plates (4,5,6). Two banks of batteries (3) mounted on a supporting channel bolted directly to the chassis of the vehicle. A solar panel (8) is shown on top of the roof of the vehicle. Fig. 3 is a schematic of the control sytem setting with a rectifier (9) connected by a polarized receptacle (14) with a polarized cap (15). A solar panel (8) is shown hard wire connected by Bus L1 and L2 and a selector switch (10), which connects into the transition relay (13) and a forward-reverse switch (16). The quick removable batteries in Fig. 1 mounted above the motors plug and lock into a power bus to facilitate

quick removal at exchange stations in exchange for fully charges batteries and/or hydrogen tanks in connection with the fuel cell system.

Sequence of Manual Operation

Position 1

The closing of the two pole switch L1-L2, and placing the selector switch in the manual **"low"** position will cause motor contactors M1 and M2 to become energized through the normally closed (N.C.) interlocks 1, 3 and 5, hence the two series motors are connected in a series connection .

Position 2

To reach a **higher medium speed,** from the number I **lower speed** position, move the selector switch to the **"medium"** speed position re-energizing motor contactors M1 and M2 through the normally closed interlocks 6 and 10 and the normally open interlocks 7 and 9, hence two series motors connected in parallel.

Position 3

To reach a **higher speed,** from the **medium speed** position, the selector switch is moved to the **"high"** position re-energizing motor contactors M1 and M2 through the following normally closed interlocks: 11, 14 and 16; and, the following normally open interlocks 12, 13, 15 and 17, and energizing the shunt fields in both M1 and M2 thus changing these two motors to compound motors which remain in a parallel connection.